Indiana Department of Education

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K-2 Mathematics Resources to Extend and Enrich the Core Curriculum Appropriate for High Ability Students
Indiana Academic Standard Strand:
Number Sense

Resource	Annotation	Differentiation Tip(s)	Correlating Indiana Academic Strand Standards	Correlating Indiana Academic Process Standards
AIMS Education Foundation (2007) ***Solve It! K-1: Problem Solving Strategies.*** Fresno, CA: AIMS Education Foundation. www.aimsedu.org (ISBN: 978-1-932093-14-8) *Also found in:* • *Computation and Algebraic Thinking* • *Geometry* • *Measurement*	This resource includes 29 activities designed to introduce and develop the following eight problem solving strategies: • Guess and Check • Look for Patterns • Use Manipulatives • Draw Out the Problem • Use Logical Thinking • Write a Number Sentence • Work Backwards • Organize the Information Through involvement in the	***Tiered Delivery:*** The "Management" section of each activity provides specific suggestions on how to adjust the challenge level specific to that activity. ***Flexible Grouping:*** Arrange students in like-ability partners or small groups to work on problem solving activities. ***Self-Pacing:*** Allow individuals/partners/small	K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 1.NS.2; 1.NS.3; 1.NS.4;	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

• *Data Analysis*	activities, students apply grade-level academic strand content skills. This resource is ideal for math club use.	groups to work through the activities related to each problem solving strategy as fast and as far as they are able. Incorporate additional grade level AIMS Solve It! activities, as needed, for acceleration beyond the second grade level. (See "3-5 Mathematics Resources to Extend and Enrich the Core Curriculum Appropriate for High Ability Students")	1.NS.5; 1.NS.6	
AIMS Education Foundation (2008) ***Solve It! 2nd: Problem Solving Strategies.*** Fresno, CA: AIMS Education Foundation. www.aimsedu.org (ISBN: 978-1-932093-15-5) *Also found in:* • *Computation and Algebraic Thinking* • *Geometry* • *Measurement* • *Data Analysis*	This resource includes 28 activities designed to introduce and develop the following nine problem solving strategies: • Guess and Check • Look for Patterns • Use Manipulatives • Draw Out the Problem • Write a Number Sentence • Use Logical Thinking • Organize the Information • Work Backwards • Wish for an Easier Problem Through involvement in the activities, students apply grade-level academic strand content	***Tiered Delivery:*** The "Management" section of each activity provides specific suggestions on how to adjust the challenge level specific to that activity. ***Flexible Grouping:*** Arrange students in like-ability partners or small groups to work on problem solving activities. ***Self-Pacing:*** Allow individuals/partners/small groups to work through the activities related to each problem	1.NS.1; 1.NS.2; 1.NS.3; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.4; 2.NS.5	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	skills. This resource is ideal for math club use.	solving strategy as fast and as far as they are able. Incorporate additional grade level AIMS Solve It! activities, as needed, for acceleration beyond the second grade level. (See "3-5 Mathematics Resources to Extend and Enrich the Core Curriculum Appropriate for High Ability Students")		
Cavanagh, M., et al (2004) ***Navigating through Number and Operations in Prekindergarten-Grade 2.*** Reston, VA: The National Council of Teachers of Mathematics, Inc. www.nctm.org (ISBN: 0-87353-548-0) *Also found in:* • *Computation and Algebraic Thinking*	This resource includes activities that introduce, develop, and extend the fundamental ideas of number and operations. Activities are divided into the following chapters: • Counting, Ordering, and Representing Numbers • Meanings of Operations • Fact Strategies, Estimation, and Computation Blackline Masters are included.	***Tiered Delivery:*** Match the grade level resource most appropriate to the readiness level of students. For the third through sixth grade levels of this resource, see "3-5 Mathematics Resources to Extend and Enrich the Core Curriculum Appropriate for High Ability Students." ***Extend:*** This resource is appropriate for all students. See the "Extend" section of each activity for additional challenging activities appropriate for high ability math students.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6 K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 1.NS.1; 1.NS.2; 1.NS.3; 1.NS.4; 1.NS.5; 1.NS.6	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

			2.NS.2; 2.NS.5; 2.NS.6; 2.NS.7	
Christensen, E. (2009) ***Coin Clues: Logic Puzzles that Reinforce Coin Values and Strengthen Math Skills (Level A)***. MindWare Holdings, Inc. www.mindware.com (ISBN: 978-1-933054-99-5) *Also found in:* • *Computation and Algebraic Thinking* • *Measurement*	This reproducible book contains 108 "coin clues" puzzles. The object of each puzzle is to put coins in a line to match the clues. The puzzles use pennies, nickels, dimes, and quarters. The puzzles get progressively more challenging throughout the book and help students develop coin recognition, money sense, logic, sequencing, and reasoning skills. These puzzles are ideal for independent task time or for partner problem-solving. It is recommended that real coins be available for students to use in solving the puzzles.	***Tiered Delivery:*** Students needing less of a challenge can be assigned lower-numbered puzzles to solve, and students needing more of a challenge can be assigned higher-numbered puzzles to solve. ***Self-Pacing:*** All 108 puzzles can be stapled into a book and students can progress through the puzzles at their own pace. ***Choice:*** Provide students all puzzles (i.e., laminated copies) and allow them to choose which puzzles they would like to complete. Explain to students that the lower the number, the easier the puzzle and the higher the number, the more difficult the puzzle.	K.NS.1; K.NS.2; K.NS.3; K.NS.7; K.NS.8; K.NS.9; K.NS.11 1.NS.1; 1.NS.2; 1.NS.3; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.6; 2.NS.7	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

Cook, M. (1993) ***Color It On The Hundred Chart.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com	Using a reproducible hundred chart, students use crayons or markers to color in the numbers that fit 15 math concept/vocabulary descriptions. There are 80 increasingly difficult activities. Concepts covered include: • Before/after • Between • Digits • Plus/minus • More/less • Odd/even • Place value This resource is most appropriate for first and second grades and is ideal for independent task time.	***Tiered Delivery:*** Students needing less of a challenge can be assigned lower-numbered activities to complete, and students needing more of a challenge can be assigned higher-numbered activities to complete.	K.NS.1; K.NS.3; K.NS.8; K.NS.9; K.NS.11 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.5	PS.1; PS.2; PS.4; PS.5; PS.6; PS.7; PS.8
Cook, M. (1993) ***30 Chart: Covering, Coloring & Numbering.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com	This resource is divided into three sections. In the first section, there are 32 activities in which students use beans to cover specified numbers on a 30 chart. In the second section, there are 32 activities in which students color in the numbers on a 30 chart that fit ten or fewer concept/vocabulary	N/A	K.NS.3; K.NS.8; K.NS.9; K.NS.11	PS.1; PS.2; PS.4; PS.5; PS.6; PS.7; PS.8

	descriptions. Concepts covered include: • More than/greater than • Less than • Between • Even • Odd • Digit/one-digit/two-digit • Before • After • Count by (2, 5, and 10) In the third section, there are 36 incomplete 30 charts on which students write missing numbers. This resource is most appropriate for Kindergarten and is ideal for independent task time.			
Cook, M. (2008) ***Count & Place: Sides and Shapes.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking* • *Geometry*	In the first section of this resource, students listen to clues and place a circle, square, and triangle on a placement board in the proper order according to the clues they hear. These tasks develop logical thinking, along with number sense vocabulary.	N/A	K.NS.3; K.NS.9 1.NS.3	PS.1; P.S.2; P.S.4; P.S.5; P.S.6; P.S.7; P.S.8

Cook, M. (1982) ***Dealing with Dominoes.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking*	This resource provides a variety of activities that use double six sets or double nine sets of dominoes. The activities focus on the following areas: • Early Number Concepts • Basic Addition Facts • Basic Subtraction Facts • Place Value and Regrouping • Basic Multiplication Facts • Basic Division Facts • Common Fractions Because the activities are so varied, this resource is appropriate for grades K-3 and beyond.	***Flexible Grouping:*** Arrange students in like-ability partners or small groups to work on appropriately leveled domino-placing activities.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.11 1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.6; 2.NS.7	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8
Cook, M. (1992) ***Duo Do Dominoes***. Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking*	This resource provides two levels ("A" & "B") of domino-placing activities, each level offering 20 challenges. Students use one set of double six dominoes to complete mathematical challenges involving addition, greater than and less than, and equalities. Level "B" adds the challenge of domino-placing	***Tiered Delivery:*** Partners/Individuals needing less of a challenge can solve challenges from Level "A." Partners/Individuals needing more of a challenge can solve challenges from Level "B." ***Self-Pacing:***	K.NS.1; K.NS.2; K.NS.3; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	rules, including patterns of descending order, ascending order, and consecutive order, as well as requiring addends that equal larger sums. A tracking sheet is included to keep track of task completion progress. This is an excellent resource for like-ability partner problem solving and also works for independent task time.	Allow like-ability partners or individuals to complete the "Level A" or "Level B" challenges at their own pace, keeping track of their progress and moving through the challenges as far as they are able. ***Choice:*** Provide students all challenges (i.e., laminated copies) and allow them to choose which ones they would like to complete. Explain to students that "Level A" is less challenging and "Level B" is more challenging.	1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6	
Cook, M. (2000) ***Early Skillboard Math.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com	Student partners use picture and/or verbal directives and tiles numbered 0-9 to match specified numbers with number representations on skillboards. At the end of each activity, one of the digits will not be requested and will be held high in the air. This resource provides for young children an opportunity to see the numbers 0-9 represented in a variety of ways, which develops	***Flexible Grouping:*** Assign like-ability partners to work on skillboard completion.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	number sense, while also developing math vocabulary and cooperation. Partners should change skillboards between activities to see different number representations each time. The concepts developed include: • More than • Less than • Greater than • Before • After • Between This resource is most appropriate for Kindergarten. For first and second grades, the title ***Skillboard Math*** is recommended.			
Cook, M. (2008) ***Mix and Match Numbers.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com	This resource includes 50 number visualizing experiences during which students match ten "cards" with ten tiles numbered 0-9 placed on a template in random order. 31 activities are pictorial and do not require reading. 6 activities are related to basic addition and subtraction facts to 10. 13 activities deal with the following concepts:	***Self-Pacing:*** Students can progress through the 50 activities at their own pace, keeping track of their progress and moving through the activities as far as they are able.	K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.8; K.NS.9	PS.1; PS.2; PS.4; PS.6; PS.7; PS.8

	• Before • After • Between • More than • Less than • Half of a quantity • Double of a quantity • Ones place • Tens place A tracking sheet for the 50 activities is provided. This resource is most appropriate for Kindergarten.			
Cook, M. (2001) ***Money Logic***. Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking* • *Measurement*	This resource provides clues for students to listen to and/or read which challenge them to place coins in proper numerical positions. The resource is divided into sections where students use 3 designated coins, 4 designated coins, 5 designated coins, and 6 designated coins from a set of 12 coins total, up to 2 of each: penny, nickel, dime, quarter, half-dollar, and dollar. Students develop money sense and logical reasoning. These activities are ideal for independent task time, partner	***Tiered Delivery:*** Students needing less of a challenge can be assigned 3-coin challenges, and students needing more of a challenge can be assigned 4-, 5-, or 6-coin challenges.	K.NS.1; K.NS.3; K.NS.7; K.NS.8; K.NS.9; K.NS.11 1.NS.1; 1.NS.2; 1.NS.3; 1.NS.4; 1.NS.5; 1.NS.6	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	problem solving, or whole-class involvement. It is recommended that real coins be available for students to use in solving the activities.			
Cook, M. ***Place Value Alone & Together.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com	Using specified constraints, students use tiles numbered 0-9 to build 3- and 4-digit numbers. There are 50 activities for students to do alone with one set of number tiles and 50 activities for partners to do cooperatively with two sets of number tiles. The activities are divided into building 3-digit and 4-digit numbers. Each activity alternates between "alone" and "together," and the activities are progressively difficult. This resource is ideal for independent task time, partner problem solving, or whole-class place value discourse. This resource is most appropriate for first and second grades.	***Tiered Delivery:*** Students needing less of a challenge can be assigned 3-digit activities, and students needing more of a challenge can be assigned 4-digit activities. ***Self-Pacing:*** Students can progress through the 50 3- or 4-digit activities, whichever are most appropriate, or all 100 3- and 4-digit activities at their own pace, keeping track of their progress and moving through the activities as far as they are able.	K.NS.1; K.NS.2; K.NS.3; K.NS.8; K.NS.9; K.NS.11 1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.1; 2.NS.2; 2.NS.5; 2.NS.6; 2.NS.7	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8
Cook, M. (2011) ***Scavenger Hunts for Primary***	This resource provides 30 activities in which students match	***Flexible Grouping:*** Assign like-ability partners to	K.NS.1; K.NS.2;	PS.1; PS.2; PS.3; PS.4;

Thinkers. Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking* • *Measurement*	12 answers to 12 problems. Students are required to do "double thinking" because the "answer" may be presented in a different way. Some solutions "have to be," and some have more than one possibility. The activities focus on the following concepts: • Right After • Right Before • More Than • Less Than • Between • Greater Than/Less Than • Numbers in the Real World • Addition Facts • Subtraction Facts • Money • Half of • 2-Digit Numbers/Place Value • Line Segments • Clocks: Time • Word Problems • Reasonable Numbers A tracking sheet is included. This resource is ideal for independent task time or partner problem solving.	work through the Scavenger Hunts. ***Self-Pacing:*** Individuals or like-ability partners can progress through the Scavenger Hunts at their own pace, keeping track of their progress and moving through the activities as far as they are able.	K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6	PS.5; PS.6; PS.7; PS.8

Cook, M. (1996) ***Skillboard Math.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com *Also found in:* • *Computation and Algebraic Thinking* • *Measurement*	Student partners use verbal directives and tiles numbered 0-9 to match specified numbers with number representations on skillboards. At the end of each activity, one of the digits will not be requested and will be held high in the air. This resource provides for children an opportunity to see the numbers 0-9 represented in a variety of ways, which develops number sense, while also developing math vocabulary and cooperation. Partners should change skillboards between activities to see different number representations each time. The concepts developed include: • Before • After • Between • Before, After, Between Mix • More Than • Less Than • More Than/Less Than Mix • Place value: Tens Place • Place Value: Ones Place • Place Value: Ones and Tens	***Flexible Grouping:*** Assign like-ability partners to work on skillboard completion.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.11 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.5	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	Mixed • Addition Facts • Subtraction Facts • Addition/Subtraction Facts Mixed • Even/Odd Numbers • Money • Time			
Cook, M. ***Tile Task Cards.*** Balboa Island, CA: Marcy Cook Math. www.marcycookmath.com ***Kindergarten:*** ***a) After, Before, Between, More & Less Tiles (1)*** ***b) Classify A Tile (1)*** ***c) Dot Patterns For More, Less & Between Tiles (1)*** ***Grade 1:*** ***d) 3 In A Row Tiles (2)*** ***e) Do Double Tiles (2)*** ***f) Hundred Chart: Missing Number Tiles (2)*** ***g) More or Less Tiles (2)*** ***h) Order Tiles (2)*** ***i) See A Tile (1)***	Each packet of tiling task cards includes 20 activity cards that require students to reason mathematically. The cards within each set are progressively more difficult. Each title is one of three challenge levels: Level 1 = specific solutions (most or all "have to be") Level 2 = some probing Level 3 = more open ended (opportunities for experimenting and persevering) Level 3 is a robust challenge. The challenge level for each title is reported in parentheses. Each packet includes a direction card, example problem card, answer sheet, and a tracking sheet. A set of number tiles 0 - 9 is needed for	***Self-Pacing:*** Students can progress through the 20 cards in each set/title at their own pace, keeping track of their progress and moving through the cards as far as they are able. ***Choice:*** Provide students all 20 cards in a set/title. Allow them to choose a certain number of cards they would like to complete, explaining that the cards from number 1 to 20 are progressively more difficult.	**K.NS.1 =** d, f, g, h, i, k **K.NS.3 =** a, b, c, d, e, f, g, h, i, k **K.NS.4** = a, c, e, i **K.NS.5 =** a, c, e, i **K.NS.6 =** c, e, i **K.NS.7 =** b, c **K.NS.8 =** a, b, c, d, e, g, h,	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

Grade 2: ***j) Round The Number Tiles (2)*** ***k) Tens & Ones Place Value Tiles (2)*** *Additional Tile Task Cards titles found in:* • *Computation and Algebraic Thinking*	each student/pair of students completing a task card. Tile task cards are ideal for independent task time, partner problem solving, and/or homework activities. Grade levels suggested are only recommendations; the use of titles is flexible between the grade levels depending on the readiness level of students.		i, j, k **K.NS.9 =** a, b, c, e, g, h, i, k **K.NS.11 =** d, e, f, g, h, i, k **1.NS.1 =** d, e, f, h, i, k **1.NS.2 =** d, e, f, g, h, i, j, k **1.NS.4 =** d, e, f, g, h, i, j, k **1.NS.5 =** e, f, g, h, i, j, k **1.NS.6 =** d, e, f, h, i, j, k **2.NS.6 =** j **2.NS.7 =** j	
Duea, J. and Ockenga, E.	This program offers six grade	***Flexible Grouping:***	K.NS.1;	PS.1; PS.2;

(1999) ***Nifty Problem Card Deck (Levels A-F)***. Edmonds, WA: Joyful Noise Publications. www.shop.joyful-noise.com *Also found in:* • *Computation and Algebraic Thinking* • *Geometry* • *Measurement* • *Data Analysis*	levels of problem-solving cards for K/1-6. Each level contains 72 task cards, recording sheets, answer keys, transparency masters, blackiline masters, and teaching notes. These cards are ideal for running a cooperative self-paced problem-solving program.	Assign like-ability partners to work through the problem-solving cards. ***Self-Pacing:*** Individuals or like-ability partners can progress through the cards in each level at their own pace, keeping track of their progress and moving through the cards as far as they are able.	K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.5; 2.NS.6; 2.NS.7	PS.3; PS.4; PS.5; PS.6; PS.6; PS.7; PS.8
Equabeam. ETA hand2mind. www.hand2mind.com *Additional Tile Task Cards titles found in:* • *Computation and Algebraic Thinking* • *Measurement*	The Equabeam is a self-checking math balance that students can use to show operations, equalities, and inequalities. Additional strips with time increments and measurements, along with customizable strips allow for across-the strand equality	***Extend:*** Adjust the level of challenge for any grade level by changing the number of weights and the number values used.	K.NS.1; K.NS.2; K.NS.3; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

	activities. This resource is ideal for use during independent task time or partner problem solving.		1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6	
Math Dice, Jr., Thinkfun. www.thinkfun.com *Also found in:* • *Computation and Algebraic Thinking*	Math Dice, Jr. is a dice game. Students use addition and/or subtraction and the five numbers rolled on five 6-sided "scoring dice" to hit the target number rolled on a 12-sided "target die." Students receive one point for each "scoring die" used during his/her turn. The game develops flexible thinking and mental math skills.	***Tiered Delivery:*** Change the type of dice, the number of dice, and the operations used to differentiate the challenge level up and/or down. As an example, use two 12-sided "target dice" and add or multiply them to determine the "target number" and use 12 6-sided "scoring dice," allowing students to use all operations – addition, subtraction, multiplication and/or division. ***Flexible Grouping:*** Assign like-ability partners/like-ability small groups to play the game.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 *1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 *2.NS.1; *2.NS.2; 2.NS.5; *2.NS.6;	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

			*2.NS.7 * Applies to an increased challenge in the level of play.	
Muggins! Muggins Math Games. Ellijay, GA: Old Fashioned Products, Inc. www.mugginsmath.com *Also found in:* • *Computation and Algebraic Thinking*	Muggins! is a game designed to develop algebraic reasoning skills, problem solving, number sense, and number operation skills. There are multi-levels of play, which makes the game appropriate for K-2 and beyond. A demonstration video is available on You Tube.	***Tiered Delivery:*** Change the type of dice, the number of dice, and the operations used to differentiate the challenge level up and/or down. There are suggestions for multi-level play in the direction pamphlet that comes with the game. ***Flexible Grouping:*** Assign like-ability partners/like-ability small groups to play the game.	K.NS.1; K.NS.2; K.NS.3; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 *1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 *2.NS.1; *2.NS.2; 2.NS.5;	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

			*2.NS.6; *2.NS.7 * Applies to an increased challenge in the level of play.	
VandeCreek, B. (2001) ***Math Rules! 1st-2nd.*** Pieces of Learning: www.piecesoflearning.com. (ISBN: 978-1-880505-79-3) *Also found in:* • *Computation and Algebraic Thinking* • *Geometry* • *Measurement* • *Data Analysis*	This reproducible resource provides a year's worth of weekly 8-problem enrichment challenge worksheets for both first and second grade. The variety of problems covers standards from all content strands. These worksheets are ideal for homework use.	***Tiered delivery:*** Match the grade level resource most appropriate to the readiness level of students. For the third through sixth grade levels of this resource, see "3-5 Mathematics Resources to Extend and Enrich the Core Curriculum Appropriate for High Ability Students."	K.NS.1; K.NS.2; K.NS.4; K.NS.5; K.NS.6; K.NS.7; K.NS.8; K.NS.9; K.NS.10; K.NS.11 1.NS.1; 1.NS.2; 1.NS.3; 1.NS.4; 1.NS.5 2.NS.2; 2.NS.3; 2.NS.4;	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8

			2.NS.5; 2.NS.6; 2.NS.7	
Zaccaro, Edward. (2003) ***Primary Grade Challenge Math.*** Bellevue, IA: Hickory Grove Press. www.challengemath.com (ISBN: 978-0-9679915-3-5) *Also found in:* • *Computation and Algebraic Thinking* • *Geometry* • *Measurement*	This resource includes 27 higher-level conceptual problem-solving challenges. Each is presented first as a whole-class introduction, followed by practice problems at the following four levels of challenge: Level 1 (easy) Level 2 (somewhat challenging) Level 3 (challenging) Genius (very challenging) Problem challenge topics include: sequences, problem solving, money, percents, algebraic thinking, negative numbers, logic ratios, probability, measurements, fractions, and division. This resource is most appropriate for first and/or second grade.	***Tiered Delivery:*** Following the whole-class introduction to a specific type of problem, students can complete the appropriately leveled follow-up challenge independently or with a like-ability partner, choosing from one of the four difficulty levels.	1.NS.1; 1.NS.2; 1.NS.4; 1.NS.5; 1.NS.6 2.NS.1; 2.NS.2; 2.NS.6; 2.NS.7	PS.1; PS.2; PS.3; PS.4; PS.5; PS.6; PS.7; PS.8